AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for ~~permanently~~ decreasing the ~~immediate~~ water-contact angle of a substrate surface, such that said decreased angle remains for at least one month, wherein said substrate surface is made of plastic and comprises a channel, having a depth of ≤ 1000μm, to serve as a liquid transportation system ~~and is made from a plastic material~~, said method comprises treating the substrate surface with a gas plasma of a non-polymerizable gas under conditions, wherein the intensity of the plasma is > 5 W/cm^3/min, the power is ≥ 250 W and the gas flow is ≤ 50 cm^3/min to produce a treated material having an immediate water-contact angle of < 30° after washing said treated substrate with a mixture of pure water and ethanol, wherein said contact angle remains for at least one month. ~~is selected so that the substrate surface after treatment has a permanently decreased immediate water-contact angle compared to an untreated substrate surface~~.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Previously presented) The method of claim 1, wherein the plastic material comprises a polymer comprising an unsaturated monomer and/or a condensation polymer.

6. (Previously presented) The method of claim 1, wherein the plasma is induced by radiowaves, microwaves, or a combination thereof.

7. (Previously presented) The method of claim 1, wherein the plasma gas is selected from the group consisting of oxygen, nitrogen, noble gas, or a mixture thereof.

8. (Previously presented) The method of claim 1, wherein subsequent to the treating step, the surface of the substrate is derivatized to exhibit anion exchanging groups, cation exchanging groups, amphoteric groups, hydroxy groups, bioaffinity groups, or chelating groups.

9. (Canceled)

10. (Currently amended) A substrate surface, which is made of a plastic material and ~~and which has been plasma treated, said substrate surface~~ comprises a channel having a depth of ≤ 1000 μm to serve as a liquid transportation system, said substrate surface has been plasma treated with a gas plasma of a non-polymerizable gas under conditions wherein the intensity of the plasma is > 5 W/cm^3/min, the power is ≥ 250 W and the gas flow is ≤ 50 cm^3/min to produce a treated material having ~~and~~ an immediate water-contact angle of < 30°, wherein said water-contact angle is changed less than 20% and/or less than 5° upon washing with a 70%w/w ethanol/water mixture and said water-contact angle remains for at least one month.

11. (Previously presented) The substrate surface of claim 10, wherein the plastic material is a polymer comprising an unsaturated monomer and/or a condensation polymer.

12. (Previously presented) The substrate surface of claim 10, wherein the surface before having been gas plasma treated exhibits an immediate water-contact angle > 30°.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) A method for culturing anchorage-dependent cells and non-anchorage dependent cells that in a part of their life cycle require attachment to a substrate surface comprising performing the culturing of the cells in contact with a substrate surface which is made of a plastic material, said substrate surface has been plasma treated with a gas plasma of a non-polymerizable gas under conditions wherein the intensity of the plasma is > 5 W/cm^3/min, the power is ≥ 250 W and the gas flow is ≤ 50 cm^3/min to produce a treated material having ~~and has with~~ an immediate water-contact angle of < 30° that is changed less than 20% and/or less than 5° upon washing with a 70% w/w ethanol/water mixture and said water-contact angle remains for at least one month, said culturing is preformed in a chamber providing said substrate surface which is present in a liquid

transportation system of a microfabricated device comprising a channel having a depth of ≤ 1000μm in said chamber.

18. (Canceled)

19. (Previously presented) The method of 17, wherein the cells are anchorage dependent and the substrate surface enables at least 30 % of the plated cells to adhere to the substrate surface.

20. (Previously presented) The method of claim 17, wherein at most 15 % of the culture medium is serum.

21. (Previously presented) The method of claim 17, wherein culturing is taking place during a time period permitting the number of cells to be at least duplicated.

22. (Canceled)

23. (Canceled)

24. (Previously Presented) The method according to claim 5, wherein said polymer is a copolymer.

25. (Previously presented) The method according to claim 5, wherein said unsaturated monomer is an alkene/alkadiene or a vinyl aryl compound.

26. (Previously presented) The method according to claim 25, wherein said alkene/alkadiene is selected from the group consisting of acids, esters, amides, and nitriles containing one or more alkene groups.

27. (Previously presented) The substrate surface of claim 10, wherein said polymer is a copolymer.

28. (Previously presented) The substrate surface of claim 11, wherein said unsaturated monomer is an alkene/alkadiene or a vinyl aryl compound.

29. (Previously presented) The substrate surface of claim 28, wherein said alkene/alkadiene is selected from the group consisting of acids, esters, amides, and nitriles containing one or more alkene groups.

30. (Previously presented) The substrate surface of claim 11, wherein said polymer material is cross-linked.

31. (Previously presented) The substrate surface of claim 11, wherein said polymer material is a mixture of two or more polymers or copolymers.

32. (Previously presented) The method of claim 5, wherein said condensation polymer comprises a monomer having two or more groups selected from the group consisting of an amino group, a hydroxy group and a carboxy group.

33. (Previously presented) The substrate surface of claim 11, wherein said condensation polymer comprises a monomer having two or more groups selected from the group consisting of an amino group, a hydroxy group and a carboxy group.

Claims 34-36 (Canceled)